<u>Amendments to the Drawings:</u>

The attached sheet of drawings includes changes to Fig. 1. This sheet, which includes Fig. 1,

replaces the original sheet including Fig. 1. In Figure 1, previous element 89 within element 33

has been removed to correct an error in the reference numerals, and previous element 35 within

element 30 has been changed to element 99 to correct an error in the reference numerals.

Attachment: Replacement Sheet
                   Annotated Sheet Showing Changes

REMARKS

In the specification, amendments to the specification have been made to correct minor editorial problems.

In amended Figure 1, the previously labeled element numeral 89 within the element labeled with numeral 30 has been changed to numeral 99 to correct an error in the reference numerals.

Claims 1-39 remain in this application, and claims 1-39 were rejected. Claims 32 and 34 have been amended to correct errors of a typographical nature. Reconsideration of this application in light of the above amendments and the following remarks is requested.

I.   Rejections under 35 U.S.C. § 102

Claim 1

Claim 1 recites the following:

> 1. A method of authenticating an originator of a packet in a network, comprising:
> filtering the packet for a tag embedded therein;
> reading contents of the tag including an address of the originator and an encrypted hash;
> decrypting the encrypted hash included in the tag;
> calculating a second hash from the address; and
> authenticating the originator of the packet upon determining the decrypted hash and the calculated hash are identical.

Claim 1 was rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,751,728 to Gunter ("Gunter").

The PTO provides in MPEP § 2131 that:

"[t]o anticipate a claim, the reference must teach every element of the claim...."

Therefore, with respect to claim 1, to sustain this rejection the Gunter patent must contain all of the above claimed elements of the claim. However, contrary to the examiner's position that all elements are disclosed in the Gunter reference, Gunter does not disclose "filtering the packet for a tag embedded therein," "reading contents of the tag including an address of the originator and an encrypted hash," "decrypting the encrypted hash included in the tag," and

"authenticating the originator of the packet upon determining the decrypted hash and the calculated hash are identical."

The Examiner cited the following passage of Gunter as allegedly disclosing the method steps of claim 1:

> When the receiving host 66 receives the modified packet 140 forwarded by the NAP 70, it decrypts the encrypted portion of the packet to obtain the data 112 and the cryptographic hash 116. If desired, the receiving host 66 may authenticate the received packet 140 to ensure the integrity of the packet. For the packet shown in FIG. 7 that uses a cryptographic hash, the receiving host calculates a hash value based on the addresses and data of the received packet 140. It is to be noted that the destination address field of the received packet 140 contains the receiving host's own intranet address. The receiving host 66 then compares the hash value it has calculated with the hash value decrypted from the received packet. If they match, the packet is authenticated, i.e., neither the addresses nor the data have been tampered with. It will be appreciated that because the hash value 116 included in the packet is calculated using the intranet address of the receiving host, it should match the hash value calculated by the receiving host if the packet has not been maliciously altered.

Gunter, Column 8, Lines 22-40.

With regard to the claim 1 limitation of "filtering the packet for a tag embedded therein," Applicants note that no such filtering mechanism is described, suggested, or otherwise alluded to. Particularly, no tagging mechanism, or a filtering mechanism for a tag embedded in a packet, is described by Gunter. For at least this reason, Gunter fails to teach each and every limitation of claim 1.

With regard to the claim 1 limitation of "reading contents of the tag including an address of the originator and an encrypted hash," Gunter is clearly insufficient to disclose such a method step as Gunter is wholly silent with regard to any tagging mechanism or methods for embedding tags in a data packet. Particularly, Gunter is devoid of any description of reading tag contents that include "an address of the originator and an encrypted hash." For at least this reason, Gunter fails to teach each and every limitation of claim 1.

With regard to the claim 1 limitation of "decrypting the encrypted hash included in the tag," Gunter fails to describe, suggest, or otherwise allude to including an encrypted hash in a tag,

and thus is clearly insufficient to disclose a method of decrypting an "encrypted hash included in the tag." For at least this reason, Gunter fails to teach each and every limitation of claim 1.

With regard to the claim 1 limitation of "authenticating the originator of the packet upon determining the decrypted hash and the calculated hash are identical," Applicants note that Gunter only describes a method of determining that neither addresses or data of a packet have been tampered with. No description is provided by Gunter for "authenticating the originator of the packet." For at least this reason, Gunter fails to teach each and every limitation of claim 1.

Therefore, the rejection is not supported by the Gunter reference and should be withdrawn.

Independent claim 15 recites similar features as claim 1 and was rejected for similar rationale as claim 1. Therefore, the same distinctions between Gunter and the claimed invention in claim 1 apply for claim 15, and Gunter fails to anticipate claim 15.

Rejections Under 35 U.S.C. §103

Claim 24

Claim 24 recites the following:

> 24.   A telecommunication network operable to transmit a data packet from an originator to a terminating device within the network, the network comprising:
> a first node connected to a data network and operable to receive the packet generated by the originator, the first node operable to execute an authentication algorithm operable to filter the packet for a tag embedded therein, decrypt an encrypted hash in the embedded tag, calculate a hash from an address of the originator in the tag, and authenticate the originator upon a comparison between the decrypted hash and the calculated hash; and
> a second node operable to receive the packet from the first node and transmit the packet to a terminating device.

Claim 24 was rejected under 35 U.S.C. § 103 as being unpatentable over Gunter in view of WO 01/47179 to Uskela ("Uskela"). Applicant traverses this rejection on the grounds that these references are defective in establishing a prima facie case of obviousness with respect to claim 24.

As the PTO recognizes in MPEP § 2142:

> *... The examiner bears the initial burden of factually supporting
> any prima facie conclusion of obviousness. If the examiner does
> not produce a prima facie case, the applicant is under no
> obligation to submit evidence of nonobviousness...*

It is submitted that, in the present case, the examiner has not factually supported a prima

facie case of obviousness for the following, mutually exclusive, reasons.

1.   Even When Combined, the References Do Not Teach the Claimed Subject Matter

The Gunter and Uskela references cannot be applied to reject claim 24 under

35 U.S.C. § 103 which provides that:

> *A patent may not be obtained ... if the differences between the
> subject matter sought to be patented and the prior art are such that
> the <u>subject matter as a whole</u> would have been obvious at the time
> the invention was made to a person having ordinary skill in the art
> to which the subject matter pertains ... (Emphasis added)*

Thus, when evaluating a claim for determining obviousness, <u>all limitations of the claim</u>

<u>must be evaluated.</u> However, since neither Gunter and Uskela teaches *a node* operable to filter a

"packet for a <u>tag embedded therein</u>, decrypt an encrypted hash <u>in the embedded tag</u>, calculate a

hash from <u>an address of the originator in the tag</u>, and authenticate the originator upon a

comparison between the decrypted hash and the calculated hash" as is claimed in claim 24, it is

impossible to render the subject matter of claim 24 as a whole obvious, and the explicit terms of

the statute cannot be met.

With regard to claim 24, the Examiner stated the following:

> Gunter discloses...the first node operable to execute an authentication algorithm
> operable to filter the packet for a tag embedded therein, decrypt an encrypted hash
> in the embedded tag, calculate a hash from an address of the originator in the tag,
> and authenticate the originator upon a comparison between the decrypted hash and
> the calculated hash (Column 8, Lines 22-40).

Office Action dated September 7, 2005, page 10.

Applicants respectfully disagree. As discussed above with regard to the rejection of claim 1, Gunter fails to disclose, suggest, or otherwise allude to any mechanism for filtering a packet for a tag embedded therein, and thus additionally fails to describe or suggest any mechanism for calculating a hash from an address of an originator in a tag. Moreover, as the calculated hash is expressly claimed as calculated "from an address of the originator in the tag" Gunter does not disclose a mechanism for authenticating an originator of the packet upon a comparison between the decrypted hash and the calculated hash that is calculated from an address of the originator. Uskela provides for none of the deficiencies of Gunter, and for at least this reason, Gunter and Uskela are insufficient to provide a prima facie case of obviousness with regard to claim 24.

Thus, for this mutually exclusive reason, the examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection under 35 U.S.C. §103 should be withdrawn.

2.   The recognition of a problem, or of the source of the problem, is not obvious even though the solution to the problem may be obvious

In the present case, it is apparent from a reading of the Gunter and Uskela reference that neither recognized the problem of authenticating an originator of a packet by way of tag contents embedded in a packet. Thus, this is a classic example of a solution to a problem being obvious only after recognition of the problem by the applicant and is part of the "subject matter as a whole" language of 35 U.S.C. § 103 which should always be considered in determining the obviousness of an invention under this statute.

Thus, for this independent reason, the examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection under 35 U.S.C. §103 should be withdrawn.

3.   The Combination of References is Improper

There is still another mutually exclusive reason why the Gunter and Uskela references cannot be applied to reject claim 24 under 35 U.S.C. § 103.

§ 2142 of the MPEP also provides:

> ...*the examiner must step backward in time and into the shoes worn
> by the hypothetical 'person of ordinary skill in the art' when the
> invention was unknown and just before it was made.....The
> examiner must put aside knowledge of the applicant's disclosure,
> refrain from using hindsight, and consider the subject matter
> claimed 'as a whole'.*

Here, neither Gunter or Uskela teaches, or even suggests, the desirability of the combination since neither teaches a node connected to a data network that executes an authentication algorithm operable to filter a received packet "for a tag embedded therein, decrypt an encrypted hash in the embedded tag, calculate a hash from an address of the originator in the tag, and authenticate the originator upon a comparison between the decrypted hash and the calculated hash" as specified above and as claimed in claim 24.

Thus, it is clear that neither patent provides any incentive or motivation supporting the desirability of the combination. Therefore, there is simply no basis in the art for combining the references to support a 35 U.S.C. § 103 rejection.

In this context, the MPEP further provides at § 2143.01:

> *The mere fact that references can be combined or modified does
> not render the resultant combination obvious unless the prior art
> also suggests the desirability of the combination.*

In the above context, the courts have repeatedly held that obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination.

In the present case it is clear that the examiner's combination arises solely from hindsight based on the invention without any showing, suggestion, incentive or motivation in either reference for the combination as applied to claim 24. Therefore, for this mutually exclusive reason, the examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection under 35 U.S.C. §103 should be withdrawn.

Claim 12

Claim 12 recites the following:

> 12. The method according to claim 11, wherein calculating a tariff for the data session further comprises calculating the tariff and levying the tariff against the originator of the packet.

Claim 12 was rejected under 35 U.S.C. § 103 as being unpatentable over Gunter in view of EP 1054529 to Blott ("Blott"). Applicant traverses this rejection on the grounds that these references are defective in establishing a prima facie case of obviousness with respect to claim 12.

It is submitted that, in the present case, the examiner has not factually supported a prima facie case of obviousness for the following, mutually exclusive, reasons.

1.   Even When Combined, the References Do Not Teach the Claimed Subject Matter

The Gunter and Blott references cannot be applied to reject claim 12 under 35 U.S.C. § 103 because neither Gunter or Blott teaches levying a tariff "against the originator of the packet" as is claimed in claim 12, it is impossible to render the subject matter of claim 12 as a whole obvious, and the explicit terms of the statute cannot be met.

With regard to the claim 12 step of "calculating the tariff and levying the tariff against the originator of the packet", the Examiner cited Page 5, Paragraph 28 and Page 9, Paragraph 50 of Blott as allegedly disclosing such a method step. Applicants respectfully disagree.

None of the passages of Blott cited by the Examiner describe or suggest "levying a tariff against the originator of the packet" as is described in the subject application and explicitly recited in claim 12. With regard to the source IP field (312) and the source port field (316) of the monitoring data (214), Blott only describes usage of such data to identify a service and associate the service with a packet. For example, Blott cites the following:

> The steps of Fig. 9 are first performed using the source IP address field 610 and the source port field 614 of the received data packet 600 in order to associate a service with the received data packet.

Blott, Page 7, Paragraph 0039, Lines 3-6.

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Reply to Office action of September 7, 2005

Attorney Docket No. 14686RRUS01U / 22171.386

Thus, Blott is clear that source address and port information is used for associating a service with a received packet. No description or suggestion is provided by Blott for "levying a tariff against the originator of the packet."

Thus, for this mutually exclusive reason, the examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection under 35 U.S.C. §103 should be withdrawn.

2.   Prior Art That Teaches Away From the Claimed Invention Cannot be Used to Establish Obviousness

In the present case the Blott reference, by providing that source address information may be excluded from the monitoring data to improve the performance of the system described by Blott, describes a system in which no record of the source may be maintained. Thus, this system clearly teaches away from claim 12, recited above.

For example, Blott recites the following:

> The src-IP field 312 contains the source IP address of the data packets. The dst-IP field 314 contains the destination IP address of the data packets. The src-prt field 316 contains the source port of the data packets. The dst-prt field 318 contains the destination port of the data packets. *These last four fields 312, 314, 316, 318 are optional and they may or may not be maintained for different users*, services, or hosts. Performance is improved if these fields are not maintained.

Blott, Page 5, Paragraph 28 (*emphasis added*).

Since it is well recognized that teaching away from the claimed invention is a *per se* demonstration of lack of *prima facie* obviousness, it is clear that the examiner has not borne the initial burden of factually supporting any *prima facie* conclusion of obviousness.

Thus, for this reason alone, the examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection under 35 U.S.C. §103 should be withdrawn.

3.   The Recognition of a Problem, or of the Source of the Problem, is not Obvious even though the Solution to the Problem may be Obvious

In the present case, it is apparent from a reading of the Gunter and Blott references that neither recognized the problem of levying tariffs against originators of packets. Thus, this is a classic example of a solution to a problem being obvious only <u>after</u> <u>recognition</u> <u>of</u> <u>the</u> <u>problem</u> <u>by</u> <u>the</u> <u>applicant</u> and is part of the "subject matter as a whole" language of 35 U.S.C. § 103 which should always be considered in determining the obviousness of an invention under this statute.

Thus, for this independent reason, the examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection under 35 U.S.C. §103 should be withdrawn.

4.   The Combination of References is Improper

There is still another mutually exclusive reason why the Gunter and Blott references cannot be applied to reject claim 12 under 35 U.S.C. § 103. Neither Gunter or Blott teaches, or even suggests, the desirability of the combination since neither teaches "levying the tariff against the originator of the packet" as specified above and as claimed in claim 12.

Thus, it is clear that neither patent provides any incentive or motivation supporting the desirability of the combination. Therefore, there is simply no basis in the art for combining the references to support a 35 U.S.C. § 103 rejection.

In this context, the MPEP further provides at § 2143.01:

> *The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.*

In the above context, the courts have repeatedly held that obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination.

In the present case it is clear that the examiner's combination arises solely from hindsight based on the invention without any showing, suggestion, incentive or motivation in either reference for the combination as applied to claim 12. Therefore, for this mutually exclusive

reason, the examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection under 35 U.S.C. §103 should be withdrawn.
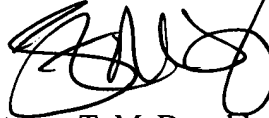
Claim 37 recites similar features as claim 12 and was rejected for similar rationale as claim 12. Therefore, the same distinctions between Blott and the claimed invention in claim 12 apply for claim 37, and Gunter, Uskela, and Blott fails to obviate claim 37.

Conclusion

    It is clear from all of the foregoing that independent claims 1, 15, and 24 are in condition for allowance. Dependent claims 2-14, 16-23, and 25-39 depend from and further limit independent claims 1, 15, and 24 and therefore are allowable as well.

    The examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the examiner such a telephone conference would expedite or aid the prosecution and examination of this application.
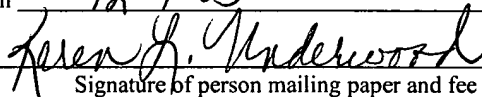
Respectfully submitted,

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Dated: December 7, 2005

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(22171.386)

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

on _____ 12-7-05 _____

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Signature of person mailing paper and fee

FIG. 1